

REMARKS

Claims 13-15 and 17-31 are pending in the application. Of those, claims 17 and 18 have been canceled by the above amendment.

Regarding the rejection of pending claims 24 to 31 under 35 U.S.C. 112, second paragraph, the limitation “the cycle data” in pending claims 24 to 31 has been amended to recite “the data pertaining to the current cycle”.

Regarding the rejection of pending claims 24, 25, 27, 29 and 30 under 35 U.S.C. 112, second paragraph (cf. paragraph 6 of the pending Office Action), it is now clear by the amendments to pending claims 24 to 31 noted above with respect to paragraph 5 of the pending Office Action that the claim limitation “the cycle data” refers to “data pertaining to the current cycle” and not to “data about the cycle”.

Regarding the rejection of claims 25, 26, 30 and 31 under 35 U.S.C. 112, second paragraph (cf. paragraph 7 of the pending Office Action), Applicant has amended pending claims 25, 26, 30 and 31, in order to make it clear that either the identifiers or the data pertaining to the current cycle are compared with predetermined values.

Regarding the rejection of pending claims 27 to 31 under 35 U.S.C. 112, second paragraph (cf. paragraph 8 of the pending Office Action), “the” has been deleted from the limitation “the current cycle data” in line 2 of pending claims 27 to 31.

Regarding the rejection of pending claims 26, 28 and 31 under 35 U.S.C. 112, second paragraph (cf. paragraph 9 of the pending Office Action), it should be clear from the amendments with respect to paragraph 5 of the pending Office Action that the claimed limitation “the cycle data” refers to the “data pertaining to the current cycle” and not to the “data about the cycle”.

Reconsideration of the rejection of claims 13-15 and 17-31 under 35 U.S.C. 103(a) as being obvious over US Patent No. 6,842,808 to Weigl et al in view of US Patent No. 6,606,670 to Stoneking et al is respectfully requested.

Claims 13 and 20 are directed to a cycle-based communication system and method for transmitting useful data between users of the system, including a data bus and the users connected to it, in which the data transmission is effected within cyclically repeating timeframes with at least two timeslots each, and each timeslot is intended for transmitting one message, one message contains at least some of the useful data, and each message is assigned an identifier, characterized in that the identifier is stored in each message as part of the message; that each message additionally includes data about the cycle; that the timeslots have a fixed length; and that at least one of the timeslots of one timeframe can be used, in various cycles, for offset transmission of different messages that are not intended for transmission in every cycle, wherein the data about the cycle has either additional cycle data integrated with the identifier of each message, or a separate cycle counter integrated in each message, wherein each message is additionally assigned time data that pertain to a timeslot and that can be learned from the identifier, *and wherein messages transmitted over the communication system whose identifier does match a predetermined identifier but which are of no interest to the user according to the data about the cycle contained in the message, are prevented from being loaded into the user.*

The support for the additional limitations presented in independent claims 13 and 20, and by the above amendments is provided in paragraph [0020], and for the newly presented dependent claims 32 and 33 in Figs. 3a, 3b and paragraphs [0023], [0045].

Paragraph [0020] refers to the messages arriving at a receiving user over the cycle-based communication system according to the present invention, Because each message contains cycle data, and the cycle data are transmitted together with a message, the cycle data can be processed more simply in the receiving users. In particular, messages whose identifier does match a predetermined identifier, but which are of no interest to the receiving user in the sense that they were transmitted in the wrong cycle, are prevented from being loaded into the user in the first place at all. This has the advantage that the message does not have to be loaded into the user before the user can determine, whether the message is of interest to him or not. Hence, fewer messages are stored in a memory of the user. This allows the use of smaller memories at the users, Due to the fact that user memories provided for the useful data or for the messages, when new messages or useful data are loaded into the user, are overwritten with a new message or the new useful data, the useful data stored in the memory must accordingly be processed by the time new useful data or a new message arrives. Otherwise, the message are lost. By using the cycle data as described in the present invention, the processing time available for the individual messages received at a user can be increased decisively, since if the cycle data are taken into account, messages are loaded less often into the user than otherwise.

Paragraph [0023] and paragraph [0045] of the application refer to the structure of the messages transmitted over the cycle-based communication system according to the present invention. Figures 3a and 3b of the present patent application show two different structures of such messages. Both structures refer to the FlexRay-protocol In the message according to figure 3a the MUX bit is used to store data pertaining to the current cycle in the message. In

the message according to figure 3b a separate cycle counter (CYCLE) is used to store data pertaining to the current cycle in the message. Limitations based on these features are introduced in new claims 32 and 33.

Weigl et al does not disclose anything relating to the users receiving messages over the TTCAN communication system, as presently recited in claims 13 and 20. Furthermore, TTCAN does not provide the possibility for a receiving user to first check, whether the incoming message is of interest to the user or not and to load a message into the user's memory only if it is of interest to the user. Rather, in TTCAN, messages transmitted over the communication system are always loaded into the memory of the receiving users, even if later on it turns out that the message is of no interest to the users. Furthermore, Weigl et al has no disclosure on the actual structure of the messages transmitted over the communication system as recited in new claims 31 and 32. The messages transmitted in the TTCAN communication system disclosed in Weigl et al actually have a different structure from the FlexRay messages shown in figures 3a and 3b and transmitted over the cycle-based communication system according to the present invention.

Weigl et al is deficient in disclosing the present invention as discussed above. Even if one were to look to the teaching of Stoneking, the addition of Stoneking to Weigl et al does not make up for the shortcomings of Weigl et al. Neither Weigl et al nor Stoneking disclose or suggest when taken alone or combined the cycle-based communication system and method for transmitting useful data between users of the system, including an identifier stored in each message as part of the message, wherein the data about the cycle has either additional cycle data integrated with the identifier of each message, or a separate cycle counter integrated in

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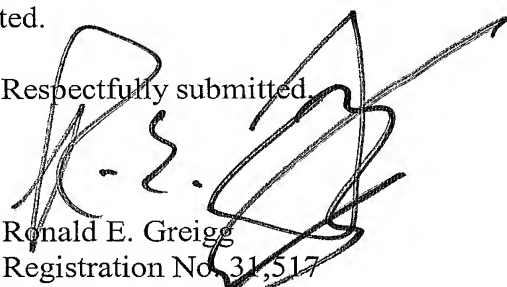
each message, and wherein messages transmitted over the communication system whose identifier matches a predetermined identifier but which are of no interest to the user according to the data about the cycle contained in the message, are prevented from being loaded into the user.

Neither Weigl et al nor Stoneking disclose or suggest when taken alone or combined the cycle-based communication system and method for transmitting useful data between users of the system wherein either a MUX bit is used to store data pertaining to the current cycle in the message or a separate cycle counter is used to store data pertaining to the current cycle in the message.

Accordingly, the invention is not rendered obvious under 35 USC 103(a) and withdrawal of the rejection and allowance of the claims is respectfully requested.

Entry of the amendment is respectfully solicited.

Respectfully submitted,



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